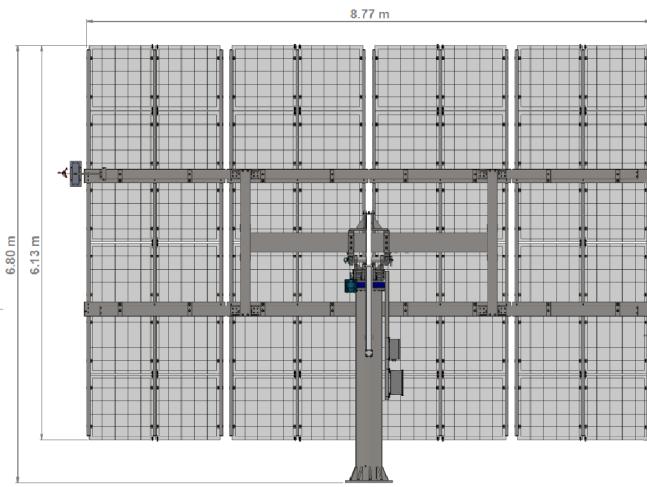


### Dimensions



### Description

The BSQ-D280/53 CPV System is specially designed as the optimum building block for solar CPV power plants.

Its BSQ-D280/53 CPV Sun Tracker is engineered for the BSQ's D280 HCPV module to achieve optical quality stiffness, sub-degree pointing accuracy, and extended tracking range to deliver the highest and cost effective energy production.

Using proprietary auto-calibrated open loop tracking control, the tracker achieves 0.1-degree minimum average pointing accuracy. It efficiently manages wind and night stow positions for safety and reliability. Supplied software monitors and controls system performance.

### Features

#### Performance

- > Numerically optimized aperture surface for least structural weight and cost
- > Auto-calibration for maximum tracking accuracy
- > Landscape collecting surface profile for least shadowing loss
- > Wide range of motion for maximum energy harvest
- > Suitable for intertropical zones

#### Reliability

- > IEC62817 certified
- > Hot dip galvanized structure
- > Controller design according to electrical safety and EMC standards and tested in harsh climatic conditions.

### Specifications

#### Mechanical

Aperture - Height .....	6.13 m
Aperture - Width .....	8.77 m
Aperture - Area .....	53.76 m <sup>2</sup>
Coverage Radius .....	5.34 m
Maximum Height .....	6.79 m
Unloaded Weight .....	2465 kg
Weight with modules .....	3598 kg

#### Structural Properties

Max. Service Wind Speed .....	10 m/s
Max. Flexure @ Max. Service Loads .....	0.3 °
Max. Wind Load (resistance limit) .....	28 m/s
Lowest Resonance Frequency .....	3 Hz

#### Tracking Drive

Tracking Geometry .....	Az.-El.
Azimuth Range .....	±180 ° (adjustable)
Elevation Range .....	0 ° to 90 °
Azimuth Gearing .....	Worm gear
Elevation Gearing .....	Screw jack
Tracking Mode Max. Speed .....	15 °/min
Manual Mode Speed .....	18 °/min
Max. Azimuth power consumption .....	136 W
Max. Elevation power consumption .....	130 W
Power consumption in idle mode .....	47 W
Max. daily energy consumption .....	1250 Wh
Max. time to stowage .....	8 min
Max. backlash .....	0.04 °
Axes turning angle measurement .....	Optical encoder
Limit switches .....	Soft and hard

Standard Test Conditions according to IEC 62670-1 DNI 1000W/m<sup>2</sup> | T<sub>c</sub> 25°C

#### Tracking Controller

Pointing Accuracy (Average) .....	0.05 °
Pointing Accuracy (Std. Dev.) .....	0.04 °
Min. Positioning Resolution .....	0.05 °
Position Resolution .....	0.018 °
Sun Ephemeris Mean Accuracy .....	0.01 with built-in GPS
Wind Stow Condition .....	12 m/s
Basic Connectivity .....	RS232-485, Modbus
Tightness Condition .....	IP65
Temperature Range .....	-10 °C to 60 °C

#### Array Configuration

No. Panels .....	48 (13.44 kW@STC)
No. Panels per String .....	6
No. Parallel Strings .....	8

